REDUCING GLOBAL POVERTY:

Encouraging Private Investment in Infrastructure

A CED Policy Update

July 2006

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Includes bibliographic references

First printing in bound-book form: 2006
Printed in the United States of America

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PURPOSE OF THIS UPDATE

In May 2002, CED released a policy statement, *A Shared Future: Reducing Global Poverty*, which called on leaders of global enterprises "to rally public and private support for a strategy to overcome global poverty." This policy update adds greater background and deeper analysis to the initial policy statement with regard to the important role potentially to be played by private investment in infrastructure, often through what are called public-private partnerships. The update calls attention to the policy changes needed in developing countries to make such partnerships attractive to private investors. The update explains how the right agreements between public and private partners can create the right incentives for the private sector to invest efficiently. It also presents useful examples of how public-private partnerships have been successful, but also how and why they have sometimes gone wrong.

ACKNOWLEDGMENTS

This policy update was developed by CED staff under the guidance of the co-chairs of CED's Subcommittee on Globalization, Edmund B. Fitzgerald, Managing Director, Woodmont Associates and Paula Stern, Chairwoman, The Stern Group, Inc. and of CED Trustee Jacob Worenklein, Chief Executive Officer, US Power Generating Company, LLC. We are grateful for the time, effort, and care they put into the development of this report.

The report was drafted by Elliot Schwartz, Vice President and Director of Economic Studies at CED, with the able assistance of Rachel Dunsmoor and Michael Robertson. Joseph Minarik, CED's Senior Vice President and Director of Research, supervised the project. Isaiah Frank, CED's Advisor on International Economic Policy, contributed valuable comments; we wish to take this opportunity to express one more time our sadness at his passing in May, and our admiration and gratitude for his many contributions to the work of CED.

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EXECUTIVE SUMMARY

Greater private-sector participation in building, financing, and operating infrastructure in developing countries can promote economic growth and reduce global poverty. Private infrastructure projects, often known as "public-private partnerships," employ private-sector entities to supply physical infrastructure and services in such sectors as power, telecommunications, transportation, sanitation, and water in developing countries. Often donor agencies, such as USAID and the World Bank, support these arrangements through financing and technical assistance. Although private investment in developing country infrastructure is currently far below its 1997 peak, **the private sector has much to offer in both human and financial resources and should be part of the solution to meeting the vast infrastructure needs of developing countries.**

TYPES OF ARRANGEMENTS FOR PRIVATE INVESTMENT IN INFRASTRUCTURE: CONTRACTS, OUTPUT-BASED AID, AND POOLED FINANCING

Private infrastructure contracts spell out the public and private sectors' duties and responsibilities. Many projects have foundered because of misunderstandings, poorly specified contracts, or a lack of execution by one or the other or both of the contracting parties. Equally important to making projects successful, and often lacking, are the transparency of decision making to combat corruption and the legal and regulatory institutions that permit enforcement of contracts and the adjudication of disputes.

Private infrastructure projects have included innovative ideas in both finance and implementation. *Output-based aid* is a strategy whereby a public agency supports the financing of infrastructure projects through payments that include a subsidy component contingent on the private contractor's achievement of specified performance targets.* This approach has great potential to significantly increase the amount of investment in critical infrastructure sectors in the developing world such as water, sanitation, power and transportation. *Pooled financing* is another strategy. It aims to overcome private-sector investors' concerns about the viability of individual projects by spreading risks over a broad portfolio of development investments.

These seemingly small innovations in contracting, service delivery, and finance, when taken together, can bring a sea change in the effectiveness of development aid. By emphasizing quantifiable goals, transparency, and greater accountability, they can also increase public confidence in and support for programs to eliminate global poverty.

THE NEED FOR PRIVATE PARTNERS: BACKGROUND AND TRENDS IN THE PROVISION OF INFRASTRUCTURE

Despite decades of investment in the infrastructure of developing countries, the scale of unmet needs is overwhelming. The World Bank estimates that about 2 billion people lack an electrical connection, 1.1 billion people lack a safe water supply, and 2.4 billion people lack adequate sanitation. Until the early 1990s, infrastructure was usually provided and regulated by the public sector, and in most developing countries, it still is. The shift toward private sector involvement was motivated in part by inefficiencies in the public provision of services, including large

* Subsidies are appropriate in some, but not all, situations. An advantage of output-based aid subsidies is that they generally are tied to specific outputs. In addition, they can be time limited.

losses due to mismanagement, graft, and corruption, and an increasingly apparent gap between growing national demands and tightening budgetary constraints. An ideological shift away from central planning and toward freer markets also played an important role.

Annual flows of public and private funds invested in infrastructure projects in developing countries rose from less than $13 billion in 1990 to more than $114 billion by 1997, but have been declining since. The East Asian financial crisis and the macroeconomic problems in Latin America are often cited as contributing to the decline. Another frequently cited cause is the failure of some high-profile, high-cost projects that have met popular resistance. Overconfidence in performance and underestimation of risks also may have led to many ill-considered projects. Ultimately, the primary, and continuing, cause of the inadequate level of private investment in infrastructure is the inability of many developing-country governments to take the necessary steps to maintain sound economic policies, improve governance, and eradicate corruption, and the failure of public-sector entities in the developing world to honor their commitments in the face of large increases in payment obligations that these entities either could not—or did not have the will to—honor.

BENEFITS OF PRIVATE-SECTOR INFRASTRUCTURE

About 95 percent of the 2900 private infrastructure partnership projects tracked by the World Bank are operational. World Bank studies suggest that these projects have improved services by adding customers, increasing quality, and lowering costs, including those associated with corruption. Some of the biggest gains from private infrastructure projects come from extending services to previously unserved populations. Efficiency improvements resulting from private participation show cost savings in the range of 10-30 percent. Examples of successful projects summarized in this report include Ecuador's water and sewage services, electrical connections to rural households in Mozambique, transportation in Chad, urban infrastructure development in India, and telecommunications services in Nigeria.

ROLES AND RESPONSIBILITIES OF THE PUBLIC AND PRIVATE SECTORS

The initiative usually resides with the host government to decide whether its goals can be realized better through a private infrastructure project. Such projects can be especially complicated and tax the resources and abilities of host governments. The government must not only specify the scope of the project, performance targets, and the compensation scheme by which the private company will be paid, they must also assure the private investor of sound economic and regulatory policies, and of political stability rarely found in developing countries.

The private-sector provider's role is to help finance and plan the project and, ultimately, to deliver the goods and services. Private-sector efficiency is more likely to be achieved with competition, especially during the bidding phase of a project, and a well-drawn contract. It is of the utmost importance that commercial risk for project construction and operation be transferred from the public to the private sector for a successful private infrastructure project.

In turn, private-sector entities providing infrastructure in the world's poorest countries will need to obtain stronger support than in the past from creditworthy governmental entities (including the World Bank and its constituent institutions and OECD governments) to assure that if the private-sector providers of services meet their obligations, the public-sector entities will honor their commitments to pay the amounts agreed and to carry out their other obligations.

Improving efficiency and ensuring that money is well spent are critical to a donor's mission. Donors see their roles as bringing together public and private partners, targeting funds to fill a specific financing gap, and helping to strike an appropriate assignment of commercial and political risks between the partnering parties. In order to enhance the prospects of success for private infrastructure projects, donors mitigate risks by providing an assortment of guarantees and insurance services, supply technical assistance to client governments, and assist these governments in developing an incentive contract to ensure the delivery of specified outputs and services.

CONCLUSIONS AND RECOMMENDATIONS

The private sector has much to offer, in both human and financial resources, but private participation in infrastructure is not a panacea. Private infrastructure projects are not easy to implement. But the scale of needs is large and the private sector must be part of the solution to meeting those needs. To obtain the benefits of private-sector involvement, public administrators need to be able to create contracts that establish the right incentives; they need to set up well-functioning supporting institutions; and they need to transfer enough commercial risk and responsibility to the private sector. Transparency on the part of both public- and private-sector participants is a particularly important part of the process because it helps create public legitimacy and thwart corruption. And donor entities need to provide creditworthy supporting mechanisms to assure that if the private-sector partners meet their commitments to deliver essential services in the poorest countries, the payment commitments for these services will be met in the agreed-upon amounts.

In many developing countries, public support for private participation is low, in part because of price increases for services from newly built projects that are above levels previously charged by governmental providers, which often heavily subsidized users (as in the case of provision of power by state-owned entities in India). **Host-country governments and aid donors must do more to overcome public resistance by explaining the benefits of foreign investment in infrastructure. They must also do more to entice private-sector participation by becoming more effective and reliable "partners."** Profit-making firms need the incentive of profit to induce investment. Developing-country governments must increase efforts to establish and maintain sound and stable economic policies and to eliminate corruption. Among the most important actions developing countries can take are:

- **To be fully transparent about all aspects of private infrastructure projects;**
- **To establish sound and equitable pricing policies; and**
- **To devote sufficient talent and resources to the development of private infrastructure project contracts and regulation.**

The shared goal of raising incomes and reducing poverty in developing countries demands that public and private sector leaders work as partners to improve the quantity and quality of vital infrastructure projects.

INTRODUCTION

CED often has extolled the virtues of private-sector enterprise as the engine of economic growth and development. The evidence in favor of it is incontrovertible. Our 2002 policy statement, *A Shared Future: Reducing Global Poverty*, recommended various steps for encouraging private-sector (both domestic and foreign) investment in developing countries. In that report, we recommended that U.S. business and other private-sector leaders rally public and private support for a strategy to overcome global poverty, that the U.S. Government remove tariffs, quotas and subsidies that impede developing-country exports, and that the United States increase development assistance and deliver it more effectively through public-private partnerships. Such partnerships would provide a more effective model of development assistance in which the business community would play a key role in building capabilities, transferring expertise, and delivering services.

Those recommendations were addressed to U.S. business, educational and political leaders, the international aid agencies, and the developing countries themselves. CED's recommendations stress that economic growth is central to raising incomes and reducing poverty, and that developing country governments must demonstrate the political will to make sustainable economic growth and poverty reduction the highest priorities and to carry out a strategy to that end. Such a strategy must include a meaningful commitment to curb corruption. In follow-on reports we explored in greater depth how enhancing the role of women in development and engaging global enterprises to undertake social initiatives can boost economic development.

Much has happened in the period between the publication of our earlier report and this one. Our goals, however, remain the same: to mobilize private- and public-sector leaders to take the necessary steps to promote economic growth and reduce poverty in developing countries.

This report focuses on one of our recommendations for reducing poverty, namely the encouragement of enterprises commonly called "public-private partnerships" focused on infrastructure activities such as the delivery of water, sanitation, power, transportation, health care and education. Ideally, such enterprises combine the relevant strengths of each private sector and public sector partner to provide a public benefit—in this connection, to expand and improve the delivery of critical services over a period of years to benefit the world's poorest people. Successful partnerships can help consolidate and build public support for programs that address global poverty.

"We support the formation of public-private partnerships in developing countries to achieve carefully articulated and specific outcomes, such as building institutional capabilities, transferring technical expertise, and delivering critical services."

Source: CED, *A Shared Future: Reducing Global Poverty* (Washington, DC: CED, 2002), p. 4.

The term public-private partnership is used by development experts to describe a broad array of relationships, some commercial and some non-commercial, ranging from private charitable giving to address social needs to privatization of state-owned commercial enterprises. Here we focus on a narrower set of arrangements by which developing country governments harness the productive capacity of private businesses, mostly from more mature economies but also from domestic and regional enterprises, to supply physical infrastructure and services (traditionally provided by the governments themselves) in such critical areas as power, telecommunications, transportation, sanitation, and water. Often, national or multinational organizations such as USAID and the World Bank finance and broker the arrangements. The purpose is to enhance and expand the delivery of basic services by mobilizing private capital and employing development resources more efficiently. Although such arrangements are generally referred to as public-private partnerships, at their core, for private companies, they are simply another form of business investment, and this report views them from this perspective.

In this report we emphasize the role private resources—capital, technology, industry know-how, management skills, and marketing abilities—can play in the provision of services usually associated with physical infrastructure. The advanced economies have come a long way in placing responsibility for such services in the private sector and have shown a path for developing economies to shift ownership and responsibility for infrastructure services (especially airlines, railroads, telecommunications, and electrical power) from the public to the private sector. Developing countries need to commit to policies that would attract private resources; most such countries will attract a significant increase in investment capital if they do so.

Still, experience suggests that the path to private-sector development and financing of new facilities is unlikely to be smooth. It will not be easy for developing country governments to create the conditions necessary for projects to realize their potential. And, private participation in infrastructure will not automatically turn developing nations into advanced economies. Nevertheless, the shared goal of raising incomes and reducing poverty in developing countries demands that public and private sector leaders work as partners to improve the quantity and quality of vital infrastructure services. There are enough success stories and sufficient indicators to show that, if done correctly, private investment in developing country infrastructure can directly alleviate conditions of poverty and help spur economic growth.

WHAT IS NEW IN PRIVATE INVESTMENT IN INFRASTRUCTURE

Some efforts to promote private-sector involvement in infrastructure have similarities to traditional public contracting, where government engages a private company to build an infrastructure facility, such as a highway, which then is transferred to the government "owner" upon completion. But such contracts typically do not call for significant private investment. More innovative private infrastructure projects require the commitment of private capital and draw on the strengths of the private sector to shoulder a broader set of responsibilities. Under a typical arrangement, the government specifies the desired outcome, and the private company designs, builds, finances, and operates a facility to achieve that outcome. (The initiative also can come from the private sector.) In such projects the private company has a greater stake in the project's long-term success; they do not walk away from the project after it is built. Private infrastructure projects, often described as partnerships, involve contracts that spell out each partner's duties and responsibilities. Experience shows that the structure and terms of the contract are critical to a project's success. Equally important, and often lacking, are the transparency of decision making to combat corruption, and the legal and regulatory institutions that permit enforcement of contracts and the adjudication of disputes.

Private infrastructure projects have included innovative ideas in both finance and implementation. One such innovation has been the use of so-called "output-based aid"(OBA) in which a public agency makes payments, which include a subsidy component, contingent on the private contractor's achievement of performance targets on the quality and quantity of service in specific geographic areas. (See Box 1.) Where competition exists among prospective operators, output-based aid subsidies can be

Box 1. Output-Based Aid

"Output-Based Aid (OBA) is a strategy for using explicit performance-based subsidies to support the delivery of basic services where policy concerns would justify public funding to complement or replace user-fees. Affordability concerns for particular groups of users, positive externalities, or the infeasibility of imposing direct user-fees represent examples of the types of policy concerns that have motivated governments to use public funds to support the delivery of basic services."[2]

In essence, OBA combines the use of performance contracts with explicit government subsidies to deliver basic services—such as water, sanitation, electricity, transport, telecommunications, education, and health care—more efficiently to those in most need. OBA projects increase accountability for performance and, ideally, allow the subsidy payments to be phased out over time. The approach is performance-based because it links payment to the delivery of specified services or outputs, which transfers performance risk to the service provider. The provider must put its own capital at risk by self-financing the project until after the successful delivery is verified, usually by a third party, after which the provider receives reimbursement. By contrast, in a typical non-OBA project, the provider is paid up front for the delivery of an established investment project, rather than the achievement of the desired output from that project.

Competition is an important element of OBA projects. Bidding for contracts creates competitive pressure, increases public confidence in the legitimacy of the service provider, and can dramatically reduce total subsidy requirements. Non-exclusive contracts, where possible, encourage direct competition. Performance criteria that measure relative accomplishments against a baseline also may be built into OBA contracts. Because residual revenues belong to the provider, OBA provides motivation to reduce costs. Re-auctioning or re-negotiating contracts after an initial period may allow the subsidy to shrink based on the provider's experience.

Sources: Global Partnership on Output-Based Aid and the World Bank awarded on the basis of the lowest subsidy required to meet output targets.

Another innovative arrangement is pooled financing, viewed by some as "the next generation of infrastructure finance."[1] By spreading risks over a broad portfolio of development investments, pooled financing aims to overcome private-sector investor concerns about the viability of individual projects. Also, it splits the private-sector role into two parts, allowing for greater specialization and efficiency in each. One part allows financial engineers, working with host governments and donor agencies, to attract foreign financial capital by mitigating risks. The other part takes advantage of private-sector partners in designing, building and operating infrastructure projects. The concept is derived from the U.S. model of state revolving funds (SRFs), which were established in 1987 amendments to the Clean Water Act (CWA).* In the developing country context, a donor could help capitalize a revolving fund with a grant or long-term loan, and it could offer to guarantee a portion of the fund's losses due to defaults. Although pooled financing is a passive form of partnership, it holds substantial promise of drawing in much needed private-sector funds.

Significantly, OBA and pooled financing shift the emphasis for development aid agencies from a focus on engineering questions—how to build a water sanitation system—to financial questions—how to secure adequate funding by paying for performance, crafting market-based incentives, and minimizing risks.

These seemingly small innovations in service delivery, contracting, and finance, when taken together, can bring a sea change in the effectiveness of development aid. They hold substantial potential for providing the basic services and infrastructure critical for development. At the same time, by emphasizing quantifiable goals, transparency, and greater accountability, they can also increase public confidence in and support for programs to reduce global poverty.

We examine these various aspects of private infrastructure projects in further detail below.

* An SRF is a revolving fund established with an initial capitalization grant. SRF loans to finance infrastructure projects are paid back with taxes, user fees, grants, or loans from other institutions. As loans are repaid, capital is freed for new loans.

THE NEED FOR PRIVATE PARTNERS: BACKGROUND AND TRENDS IN THE PROVISION OF INTRASTRUCTURE

Despite decades of investment in the infrastructure of developing countries, the scale of unmet needs is overwhelming. The World Bank estimates that about 2 billion people lack an electrical connection, 1.1 billion people lack a safe water supply, and 2.4 billion people lack adequate sanitation.[3] The annual requirement for infrastructure financing is estimated to be about $500 billion, or about 7 percent of GDP for all developing countries. While the World Bank has recently been shifting some funding towards infrastructure, that shift will not be enough to fill the financing gap. In the 1990s, when investment was historically high, about 8 percent of infrastructure investment was financed by official development assistance, 22 percent came from the private sector, and self-financing from developing countries amounted to about 70 percent.[4]

Private-sector provision of public services is a relatively new phenomenon in developing countries, but the amount of capital potentially available for investment swamps the funds that could be provided by development aid agencies. Until the early 1990s, infrastructure was usually provided and regulated by the public sector, and in most developing countries it still is. The shift toward private-sector involvement was motivated in part by inefficiencies in the public provision of services, including large losses due to mismanagement, graft, and corruption, and an increasingly apparent gap between growing national demands and tightening budgetary constraints. An ideological change away from central planning and toward freer markets has added to the shift.

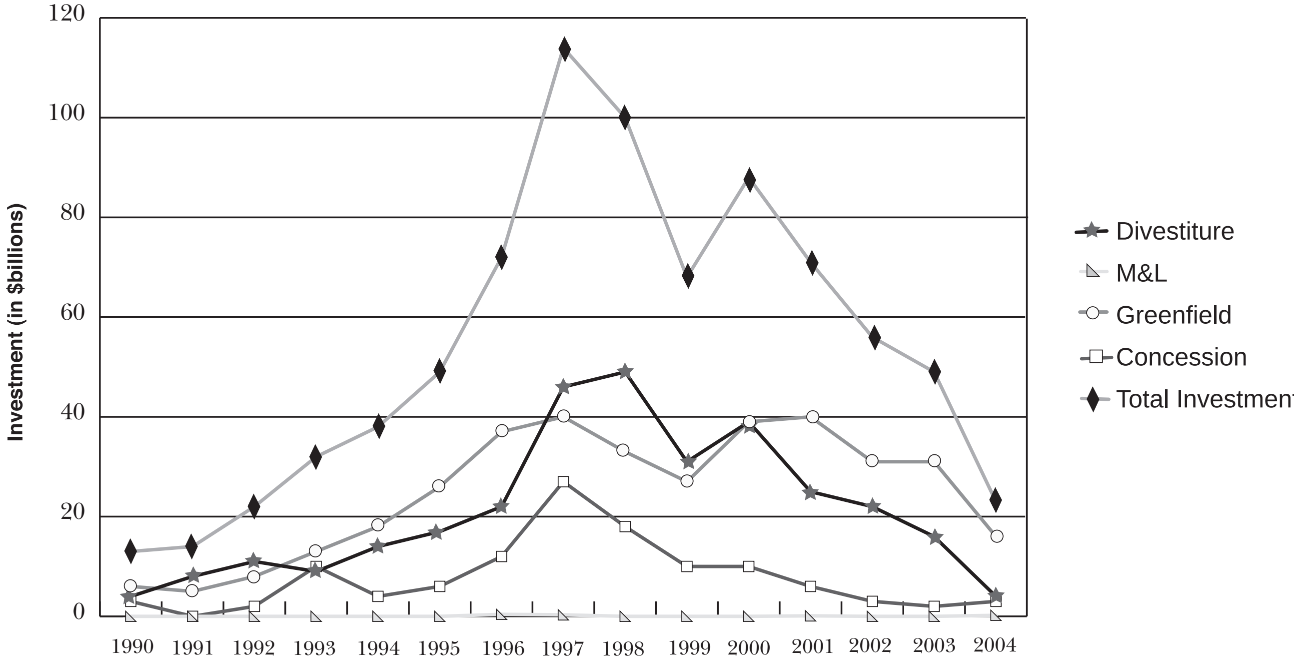
Trends in Private-Sector Infrastructure Investment

Between 1990 and 2004, a total of $865.8 billion in public and private funds was invested in over 2900 public-private infrastructure projects in developing countries. Annual flows rose from less than $13 billion in 1990 to more than $114 billion by 1997, but have been declining since. (See Chart 1.) Slightly less than two-thirds of the total number of projects have been located in Latin America and East Asia, primarily in Brazil and China. Investment flows have favored upper-middle-income countries, although flows to low-income and lower-middle-income countries increased in 2004.

The World Bank identifies four types of infrastructure projects with private participation: 1) divestiture, 2) management and lease contracts, 3) concessions (or management and operation contracts with major private capital expenditure), and 4) greenfield projects.[5] The differences among the categories are somewhat arbitrary; all combine management expertise with capital investment in varying degrees.

- Management and lease contracts, in which a private entity takes over the management of a state-owned enterprise, are a traditional form of private participation. They do not involve significant equity participation, and they represent a small part of the value of investment in private infrastructure projects.
- By contrast, in a divestiture, or other form of privatization, a private entity buys the equity of a state-owned enterprise and manages it as a private entity. Investment in divestitures peaked in 1998 at $49.4 billion, and by 2004 had fallen to less than 10 percent of that level.

Chart 1
PPP Investment 1990-2004
(in billions)



Source: World Bank

- In a concession, a private entity takes over the management of a state-owned enterprise, plus construction, rehabilitation, and operation of facilities. The concessionaire assumes significant investment risk for a set period. Concessions tend to be concentrated in transportation and water and sanitation, and more than half of concession projects have been in Latin America. Investment in concessions also fell by 90 percent, from $27.5 billion in 1997 to $2.7 billion in 2004.
- Greenfield projects are those in which a private entity or a public-private joint venture builds and operates a new facility. In some cases, at the end of a defined period, the facility may be turned over to the public sector. Greenfield projects in which the private sector is a major investor are most commonly found in energy and telecommunications, and have been the most stable form of investment, as measured by dollar value, until falling off in 2004.

The decline in private investment since 1997 (see Chart 1) has been attributed to several factors (some are analyzed in more detail below). The East Asian financial crisis and macroeconomic problems in Latin America are often cited as contributing to the decline. Another frequently cited cause is the failure of some high-profile, high-cost projects that have met popular resistance. Overconfidence in performance and underestimation of risks may also have led to many ill-considered projects. Frequent contract renegotiations, and even outright cancellations, are indicative of discontent between public and private partners, and such events early on may have deterred some additional investment.[6] Further, in many countries the same basic qualities that tend to attract private investment, including transparency, the rule of law, and respect for international arbitration, have often been missing. To attract private investment, developing countries must provide the necessary judicial institutions to support enforcement of contracts and arbitral awards in a corruption-free environment.

Ultimately, the primary, and continuing, cause of the lack of private investment must be the inability of many developing-country governments to take the necessary steps to maintain sound economic policies, improve governance, and eradicate corruption, and the failure of public-sector entities in the developing world to honor their commitments in the face of large increases in payment obligations that these entities either could not—or did not have the will to—honor.

Benefits of Private-Sector Infrastructure

About 95 percent of the 2900 private infrastructure partnership projects tracked by the World Bank are operational. World Bank studies suggest that these projects have improved services by adding customers, increasing quality, and lowering costs, including costs associated with corruption. Some of the biggest gains from private infrastructure projects come from extending services to previously unserved populations. Studies on private participation in water find a 5-35 percent increase in access following private-sector participation.[7] In Bolivia, cities that included private participation in sewerage saw a coverage increase of more than 50 percent by 2001 compared to cities without private participation.[8]

Efficiency improvements resulting from private participation in infrastructure projects show costs savings in the range of 10-30 percent.[9] Efficiency gains are attributed to improved management, the reduction of duplicative costs, and reduced corruption. Of these, improved management appears to be the most enduring. Reducing duplicative costs by laying off unneeded workers in privatized entities previously owned by government produces a saving to the privatized entity, although not necessarily to the national economy, at least in the short term. However, such layoffs have made privatization of existing infrastructure companies and projects politically unpopular. The reduction in petty corruption is well documented and has the benefit of allowing the private entity to keep more of its revenue rather than having it diverted by employees to their own pockets. However, opportunities for other forms of corruption—for example in the award of contracts—may offset some of these gains.[10]

EXAMPLES OF PRIVATE INFRASTRUCTURE

Infrastructure projects take many forms, but they generally share two characteristics: 1) they operate in the context of positive externalities or a "natural monopoly," and 2) they are not commercially viable without public-sector involvement and support.*

A special case, perhaps the exception that proves the rule, occurs in mobile telecommunications. Before mobile telephony, telecommunications services based on land lines typically were provided by a single company, usually publicly owned. New technology, leading to mobile phones, has broken the need for a public monopoly to provide the infrastructure for telecommunications. Allowing competition from private mobile-telephone providers has created the opportunity for a vast increase in the numbers of users of such services.

Some examples will illustrate the benefits and risks of private participation in infrastructure.

Risk Mitigation in Ecuador's Water & Sewerage Concession

Guayaquil is Ecuador's main industrial hub and has the country's largest urban concentration. The city's water and sewerage network, which services only about 63 percent of residents, is overburdened by a growing population, which is exacerbated by migratory influx from nearby rural communities.

In August 2001, when losses of water provided by the public sector (through leaks, theft, and other causes) climbed to 80 percent, the public water and sewerage oversight agency—ECPAG—auctioned a 30-year concession for upgrading, managing and operating public water and sewerage assets. The contract required the company to bear the investment risk for upgrades and expanded service while meeting minimum quality and expansion targets. In the first five years of the concession, the contract requires 55,238 new water and sewerage connections in low-income areas. The contract required a bond from the private-sector entity as collateral for meeting these targets. The winning company, the Netherlands-based International Water Service, has a 15-year guarantee on both its equity participation and against wrongful seizure of the bond by the government. These guarantees played a crucial role in getting the project off the ground. So far, utilizing a progressive government subsidy scheme, the company has decreased leaks by 6 percent, expanded services and cut water costs in half for low-income households.

Providing Electricity Connections to Rural Households in Mozambique

Mozambique has a per capita income of $210, and fewer than 6 percent of households are connected to the main electricity grid, which is operated by the national utility. The government signed a concession contract in 2004 with an international consortium to supply electricity to the rural area of Inhambane province, which is cut off from the grid. Before the contract, electricity in the area was generated using diesel oil or gas from a nearby gas field. Local power systems were operated by a private company under a management contract that provided little incentive for improved collection rates, connecting new customers, or other service improvements. The central government was responsible for new investment, which was mostly not forthcoming.

The concession contract, which was let by competitive bidding, granted the operator a monopoly to generate, distribute, and sell electricity within a specific geographic region, and to set tariffs within certain limits. Although the winning bid set a tariff slightly higher than previous rates, the community agreed that the increase was a fair exchange

* Externalities are spillover effects that are not captured by markets. Governments provide infrastructure because the spillover effects are positive and under-produced by the private sector. Infrastructure also typically involves a natural monopoly, where economies of scale are important--usually the fixed costs of building a facility are high and the marginal cost of operating it are low. Large-scale physical networks, such as roads and water systems typically are expensive to build and difficult to finance through market-based prices. They also exhibit positive externalities because of the role they play in facilitating commerce.

for better and more extensive service. The operator will receive a subsidy of $400 for each new residential connection it makes. No subsidy is provided for business connections. Payment of the subsidy, which is financed through a World Bank (IDA) credit, is contingent on physical verification of the connection by an independent engineer.

Improving Roads in Chad Using Output-Based Aid[11]

Chad's annual per capita income in 2004 was $250. The environment is harsh, and the population is scattered. Chad's primary road network consists of about 6,200 kilometers of roads, only about 10 percent of which is paved.

The government of Chad has contracted for private-sector provision of road maintenance since 1994. Such contracts were based on a traditional public works model that lacked performance incentives beyond basic execution. In 2001, the government, with World Bank assistance, awarded a performance-based contract for the management and maintenance of roads to a French company. The company bears all responsibility for designing, scheduling, and carrying out the work. The contract provides direct payment and explicit subsidies to the company for meeting defined performance outputs keyed to rehabilitation, maintenance, and management of specified roads. To date, the company has complied with and exceeded service quality requirements. The roads are judged to be in excellent condition and users say they are satisfied. The World Bank attributes at least some of the success to a well-designed contract. The contract is expected to result in long-term capital-cost savings. Improved management and maintenance motivated the government to allocate more dedicated tax revenues to roads and may allow the financing of roads to become self-sustaining. Based on these and other assessments, the World Bank is initiating similar projects in nearby African countries, including Burkina Faso, Cape Verde, Madagascar, and Tanzania.

Despite this success, recent developments have thrown into question the future of this project in Chad. Following the passage of the Petroleum Revenue Management Law by the Chadian government in 1999, World Bank entities financed or guaranteed $192.9 million to help construct a 650-mile oil pipeline between Chad and Cameroon. The provision of these monies by the World Bank was contingent on Chad devoting the majority of the revenue from the pipeline to sectors that reduce poverty and improve the living standards of its people. At the end of 2005, the Chadian government approved changes to the Petroleum Revenue Management Law that will allow revenues to be shifted to a wider group of sectors, including security and territorial administration. More alarming, the enacted changes double to 30 percent the amount of money that can be spent with no oversight whatsoever. Given the clear violation of the contract on which the loan was based and Chad's long history of corruption, the World Bank announced in January 2006 that it would withhold all new loans and grants to the government of Chad and suspend the disbursement of International Development Association funds.

Innovative Private Finance for Urban Infrastructure in Tamil Nadu, India

Tamil Nadu is a densely populated, highly urbanized state of India. Only 30 percent of the state's 27 million urban dwellers have sufficient access to drinking water. Less than 40 percent of urban households have direct connections to water. Only 16 percent of urban local bodies (ULBs)—relatively small local government entities (there are over 700 in Tamil Nadu)—have a sewerage system. Less than 50 percent of roads have storm water drains.[12]

The Tamil Nadu Urban Development Fund (TNUDF), established in 1996, is managed by a joint public-private venture that is majority owned by the private sector. TNUDF raises funds for urban development projects in the region. Fourteen ULBs participate in the Fund. In general, ULBs are considered by commercial lenders to be too small and unreliable to be creditworthy on their own.

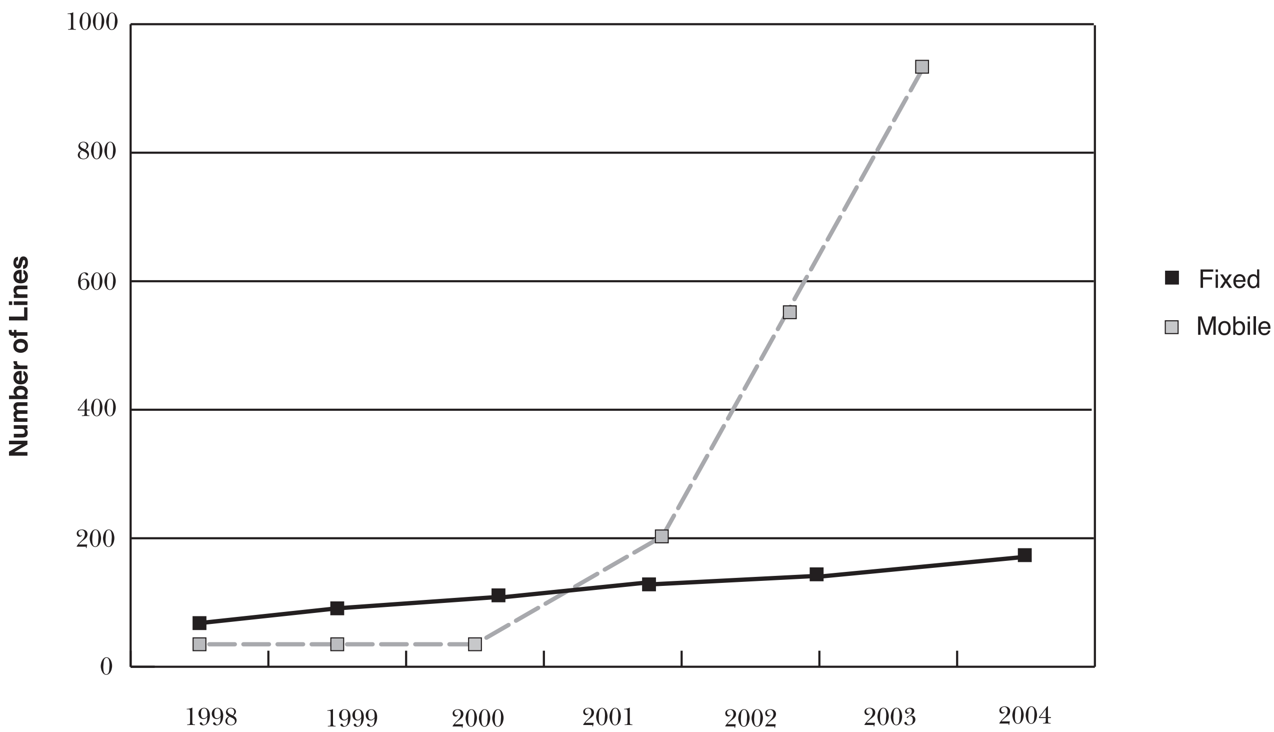
Under a USAID program, TNUDF pooled together the ULBs and sold bonds on the domestic capital market, which will be repaid with taxes and user fees from various infrastructure projects. The bonds are partly backed by a reserve fund from the state and a 50 percent guarantee from USAID. This program has raised more than $6.4 million from the private sector.

Competition in Telecommunications Services in Nigeria

At the beginning of the twenty-first century, Nigeria's telecommunication system was hopelessly out of date, extremely limited in scope, and prohibitively expensive for the vast majority of citizens, 70 percent of whom survived on less than $1 a day.[13] In 2001, only one national telephone network and one cellular telephone provider operated in Nigeria, Nigerian Telecommunication Limited (NITEL) and Nigeria Mobile Telecommunication Limited (M-Tel), respectively. These two quasi-monopolies had very limited capacity, and several areas of the country had no phone service at all.[14]

With the aid of a revised charter that permitted competition within the telecommunications sector, the Nigerian Communications Commission developed a licensing system, which would allow the nation to benefit from the global developments and advancements in information technology and the reduced costs stemming from competition among providers.[15] Initially, four digital mobile phone licenses—one guaranteed jointly to NITEL and M-Tel—were offered in 2001 in an international auction lauded by observers as transparent and absent of corruption and political interference. As the Nigerian telecommunications market expanded over the next several years, the NCC offered addi-

Chart 2
Number of Connected Telephone Lines in Nigeria



Source: Nigerian Communications Commission, *Industry Statistics: Subscriber Data*, www.ncc.gov.ng tional mobile and fixed telephone licenses, as well as Internet and satellite service licenses.

Over the last six years, Nigeria's telephone and Internet systems have undergone a startling transformation. By 2004, 28 fixed and cellular telephone service providers were operating in Nigeria, and 90 different companies were providing Internet and / or satellite network services.[16] Between 1998 and 2004, the number of fixed telephone lines increased from 450,000 lines to over 1,027,000 lines. The number of cellular phone lines in Nigeria experienced an even more spectacular jump of 26,112 percent, from 35,000 in 1998 to 9,174,000 at the end of 2004.[17] (See figure.) While rapid technological advances occurred during these years, they cannot solely account for the dramatic expansion of the Nigerian telecommunications industry. During the same time period, Western Europe and the United States reported 279 percent and 163 percent increases in the number of mobile phone lines, respectively.[18]

As an ever increasing number of companies vied for market shares, the price of telephone and Internet service in Nigeria dropped significantly, placing it within the grasp of a larger segment of the population. The cost of a mobile phone starter package decreased from $145 in 2001 to less than one cent in 2004. The cost of internet access dropped more than 80 percent between 1999 and 2004, to 70 cents per hour. While the majority of users are concentrated in urban areas, Nigeria is currently working to increase telecommunications access in rural areas through two projects: Rural Telephony and Wire Nigeria.[19]

ROLES AND RESPONSIBILITIES OF THE PUBLIC AND PRIVATE SECTORS

Experience with private investments in infrastructure has been mixed. Evaluations indicate that many projects founder amid accusations of broken promises by one or another of the public and private partners. And, as noted above, this experience has diminished enthusiasm for new agreements, notably among key public and private-sector participants. Nevertheless, aid donors and anti-poverty advocates, including CED, see the opportunity for adjustments—learning from past mistakes—that would justify broader support for private infrastructure arrangements. In this section we examine how each of the participants—local government, private-sector provider, and aid donor—is expected to perform and the extent to which expectations match experience. In the next section we examine proposals for change.

The Public Sector in Developing Countries

In principle, private infrastructure projects start with the host country's development objectives, which are usually incorporated into a national development plan or, for low-income countries, a World Bank-IMF Poverty Reduction Strategy Paper (PRSP).* Because of the complexity and political sensitivity of most infrastructure projects, they may go through several years of preparation and negotiation before a contract, typically of a long duration such as 30 years, is signed, and the project is ready to get underway.

The initiative clearly resides with the host government—national, regional or local—which must decide whether its goals can be realized better through a private infrastructure project, a more traditional procurement contract, or a wholly public enterprise. It must also have the will to commit to establishing an environment conducive to business investment.

At a practical level, the government must specify the scope of the project, performance targets and the compensation scheme by which the private company will be paid. Payment schemes have moved away from traditional forms of public-utility regulation, which were keyed to a rate of return on input costs or to price caps. Now, they focus greater attention on provider incentives and on output-based measures of accomplishment.

Private infrastructure projects often require the host government to undertake policy changes or guarantee certain conditions deemed necessary for the project to be successful. Such changes may include legislation to grant certain needed authorities to either the private enterprise or the public-sector entity overseeing it, such as creating the legal authority for the private company to operate, or authorizing taxing or regulatory authority for the government. They may require building of complementary infrastructure, reforming contracting procedures or other regulations, or taking various other actions to ensure the success of the project. Private companies in unsuccessful projects often accuse the public sector of failing to fulfill promised commitments, and such claims are supported by ample evidence in many of the most visible failures.

Evaluations of private infrastructure projects suggest that projects sometimes demand more from the public-sector government than it can deliver. That is, they require the kinds of technical acumen, sound economic and regulatory policies, and political stability rarely found in developing countries. On the

* "Poverty Reduction Strategy Papers (PRSP) describe a country's macroeconomic, structural and social policies and programs to promote growth and reduce poverty, as well as associated external financing needs. PRSPs are prepared by governments through a participatory process involving civil society and development partners, including the World Bank and the International Monetary Fund (IMF)." See <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPRS/0,,menuPK:384207~pagePK:149018~piPK:149093~theSitePK:384201,00.html> .

human-resource side, private infrastructure projects put strong demands on the capabilities of government managers and technicians to plan complex undertakings, taking into account the effects of various incentives on contractor and customer behavior, and to regulate private economic activity in the public interest. In the political arena, governments may be unable initially to carry through on promised reforms or, later, to withstand the pressure to roll back such critical but unpopular policies as setting prices high enough to recover full costs. They may be unable to maintain macroeconomic and exchange-rate stability, upon which a project's success may rest.

Another criticism of public-sector behavior focuses on fiscal incentives. Private infrastructure projects may be especially attractive to a government with a constrained budget for capital expenditures. Because most of the costs of a private infrastructure project are nominally borne by the private entity and spread over the life of the project, public-sector expenditures may appear to be reduced. Such an arrangement is valid when private-sector funds are at risk and additional to public-sector funds. However, to the extent the government guarantees or underwrites the private capital, it undermines the notion that such capital is truly additional, and the appearance of a reduced public-sector role may be false. The fiscal effect of a government guarantee or, put another way, a riskless investment is the same as expanding the public budget.[20] Profit guarantees also encourage private-sector financing for ill-considered projects that can be costly to the public.*

Private Sector—Foreign and Domestic

The role of the private-sector provider is to help finance and plan the project and, ultimately, to deliver the goods and services. With a well-established contract and a known set of incentives, the private company can be expected to mobilize resources efficiently to produce the output demanded of it. Of course, like all for-profit enterprises, the private-sector company will seek to earn a return on its investment.

Both theory and experience point to the importance of competition as a basis for private-sector efficiency and to well-drawn contracts as a means for channeling incentives toward the achievement of specified goals.[21]

Project evaluations show that competition, especially during the bidding phase of a project, is a key factor in lowering costs. The scope for competition in service delivery is often limited because of the "publicness" of a project, where the service may be a natural monopoly or have externalities that cause private providers to underproduce relative to the social optimum. In sectors where externalities may be less important and technology enables multiple providers, such as (wireless) telecommunications, opportunities for service competition may be more abundant, and evaluations suggest that such projects do tend to have more competition. (See, for example, the Nigerian case presented above.)

Contracts are important because they establish the extent to which private-sector capital will be at risk, the latitude managers will have for innovation, and the incentives they will have to meet (or avoid) performance goals. Poorly written contracts can lead private-sector managers to cut output or quality in order to maximize private rather than public gain. Good contracts, however, do not guarantee good results. In some cases, companies have overestimated market prospects or underestimated commercial and political risks.[22] As noted earlier, one thing upon which analyses of private infrastructure projects agree is the importance of transferring commercial risk from the public to the private sector. Results are poorest where such risks are not transferred, and the economic gains are greatest where risks are transferred.

Political risks are also important, and such risks take various forms. For one, critics often blame the private company for such perceived negative effects as the introduction of higher prices to recover costs, the impacts of higher

* A Mexican toll-roads program, for example, cost tax payers more than $7 billion, and some analysts credit this cost to the profit guarantee aspects of the program.

Box 2. The Politics of Water

Access to safe water and sanitation is essential to reducing global poverty. It is a fundamental health issue. The UN reports that at least 2 million people, mostly children, die annually from water-borne diseases. An additional 8 million deaths of children were linked to unsafe water and lack of sanitation, because water-borne diseases reduced their ability to fight infections.[23]

Many developing country governments have turned to private providers of water services—safe drinking water and sewerage services—in an effort to overcome their own inability to provide such services. In many cases, private providers are better equipped, in human and financial resources, and better motivated than their public-sector counterparts. But civil protests against water privatization projects are common, and sometimes violent.

Protests have clearly had an effect in causing private providers to become less interested in developing country water projects. Investments in water and sewerage projects fell from a peak of $9.7 billion in 1997 to $0.8 billion in 2003. By December 2003, projects accounting for 40 percent of total investment were cancelled or under international arbitration.

Activists have framed the issue of access to water as a "basic human right" and have opposed the participation of private commercial firms, which operate through market, and profit, incentives. (In turn, private-sector suppliers have countered that the water they supply is free; the charge is for the water treatment and delivery.) Protestors also focus on price increases that frequently coincide with privatization. Such price increases cause current users to pay more for water than they did before, but they also make water connections available to users who previously had no connection. Unconnected users typically pay much more to access lower quality water than they would be able to get under the privatization project.

The cancellation of the Cochabamba water concession in Bolivia provides an instructive example. The concession started in October 1999 and was terminated by the government within six months, in April 2000, after violent protests, which were heralded as a "major popular victory against the forces of globalization."[24] However, water service there has not improved and the urban poor who would have gained from the project have been denied its benefits. Water is available only 4 hours per day and the proportion of households connected to the water network has fallen.[25]

costs on lower-income populations, and environmental degradation that may accompany a large infrastructure project, even though such effects may be intrinsic to the project and unrelated to the type of entity running it. Nevertheless, private providers make easy targets for political agitation, especially when they are involved in such politically sensitive areas as the distribution of clean water. (See Box 2.)

Of course, private entities do indeed sometimes contribute to negative political effects, even when companies take actions within their contracted rights—such as shut-offs for non-payment. Companies have also been accused of strategic bidding to win contracts with low bids, only to renegotiate more favorable terms later.* Such actions, and others, have at times exacerbated domestic political tensions.

Political risks take other forms as well. Companies may misestimate the government's ability to fulfill promises and expectations, such as the maintenance of macroeconomic and exchange-rate stability. Such miscalculations have caused some companies to sustain substantial economic losses. As an example, SUEZ, an international industrial and services company based in France, announced in September 2005 that it was withdrawing from its water concession in Argentina, known as Aguas Argentinas. The concession, which was signed as a 30-year contract in 1993, supplies water and sanitation services to more than 10 million people in Buenos Aires. SUEZ's decision resulted from a dispute that arose during Argentina's 2001 financial crisis. At that time, the government froze the utility's tariffs and converted them from U.S. dollars into pesos, which made the company's contracts unprofitable. By 2002, SUEZ had already written off losses of $870 million from its investment in Aguas Argentinas.[26] Such experiences have, of course, weakened the private sector's enthusiasm for infrastructure projects and underscore the need for new

* In practice, it is often difficult to determine when renegotiations might be justifiable because of unpredictable events or factors outside the control of the company.

policies under which multilateral agencies (such as the World Bank) and OECD governmental agencies will help support the payment obligations of local governmental entities in order to induce investment by the private sector in the poorest countries for critical services such as clean water, sanitation, transportation, power, health care and education.

Aid Donors

The appeal of private infrastructure projects to donors comes from a variety of sources. Primarily, donors see the potential for private infrastructure to improve the efficiency of aid resources and contribute significantly to the growth and development of client countries. Improving efficiency and ensuring that money is well spent are critical not only to the donor's mission but also to building public support for development targets, such as the UN Millennium Development Goals. And although donors generally have a poor record of supporting the private sector, they are increasingly looking for help from business to meet development goals.

In the United States and other donor countries, channeling aid through the private sector may lift support for aid goals and programs by taxpayers who are distrustful of government spending and concerned that public funds are being siphoned off by bribery and corruption in recipient countries. Taxpayers may feel reassured that aid money is being well spent if it is entrusted to known companies that have a stake in delivering verifiable outputs. Although employing private contractors cannot assure the elimination of corruption, shifting to private providers typically creates more transparency at the bidding stage, where corruption involving private companies is most likely to occur, in contrast to the pervasive bribery and outright theft that occurs lower down the chain in less observable transactions in many public-sector enterprises.

Donors also like the ability to leverage their money by attracting private capital to supplement development resources and private management to extend existing resources by using them more efficiently.

Donors see their roles as bringing together public and private partners, providing "gap" financing, and helping to strike an appropriate assignment of commercial and political risks between the partnering parties.[27] They have identified three primary channels by which development assistance can be used to enhance the prospects for private infrastructure projects: risk mitigation, technical assistance, and output-based aid.[28]

Risk mitigation can take several forms, and donors provide an assortment of guarantees and insurance services aimed at encouraging private-sector trade and investment. The IFC, a member of the World Bank Group, provides loan and equity financing for private-sector projects in developing countries. It also helps private companies in developing countries to obtain financing in international financial markets. In addition, it provides advice and technical assistance to businesses and governments.

Another member of the World Bank Group, the Multilateral Investment Guarantee Agency (MIGA), provides political risk insurance, which guarantees against currency inconvertibility, expropriation, war and civil disturbances, and breach of contract. It and other agencies also provide dispute mediation services and other forms of technical assistance aimed at helping developing countries attract and retain foreign private capital. As donor attention has turned to private infrastructure projects, MIGA has become more actively involved in infrastructure programs, although its portfolio of infrastructure-related guarantees was relatively small at about $1.87 billion in 2005. The Guayaquil water project highlighted above accounted for $17.1 million of those guarantees.[29]

Projects also tend to require substantial technical assistance, and virtually all development aid donors provide technical assistance to client governments. Technical assistance is often an integral part of a donor's financing program. However, the type of technical assistance needed for successful projects may in some cases differ from the traditional engineering assistance typically provided by the Bank and other donors. Such necessary assistance can take the form of capacity building through education and training or the provision of direct support for specific functions such as assistance with contract negotiations and economic regulation.

In 1999, the governments of Japan and the United Kingdom, working with the World Bank, created the Public-Private Infrastructure Advisory Facility (PPIAF), "a multidonor technical assistance facility aimed at helping developing countries improve the quality of their infrastructure through private sector involvement."[30] PPIAF works closely with the World Bank's Infrastructure Action Program. Its primary mission is to promote best practices on private involvement in infrastructure and to channel technical assistance to developing countries' governments on strategies and measures for involving the private sector in infrastructure.

The social benefits and externalities provided by infrastructure projects usually justify a public subsidy. Most projects are not financially self-sustaining; if they were, they would easily attract private commercial capital. In the case of private infrastructure projects, donors can target funds to fill a specific financing gap or help the recipient government to fashion an incentive contract to ensure the delivery of specified outputs and services. Subsidized services can be delivered in various ways, for example through vouchers to end users, by an initial grant to finance the construction of a facility, or through output-based aid that ties the payment of public funds to the delivery of specified services, as described earlier.

LESSONS LEARNED

Private participation in infrastructure is an important potential resource for developing countries but it is not a panacea, and it is not easy to carry out in a manner that yields positive results. Aid agencies are well aware of both the promise and pitfalls of private infrastructure projects. Project evaluations conclude that "well designed schemes can bring about substantial increases in overall welfare."[31] To obtain the benefits of private-sector involvement, public administrators need to be able to create contracts that establish the right incentives; they need to have the capacity to monitor "milestones" and quality; they need to set up well-functioning supporting institutions; and they need to transfer enough commercial risk and responsibility to the private sector. Transparency on the part of public- and private-sector participants is a particularly important part of the process because it helps create public legitimacy and thwart corruption. For its part, the private-sector participant will want to minimize political risk and exposure to political interference.

Despite documented successes, private participation has met some serious obstacles. While completion rates for Bank-sponsored private infrastructure projects overall are over 90 percent, some sectors have done less well. Some observers suggest that 40 percent of capital invested in water projects involving private investors from 1990 to 2003 was for projects the World Bank classifies as either cancelled or distressed.* Thirteen percent of spending on transport has also been in failed projects.

In many developing countries, public support for private participation is low. The Latinbarometer survey in 2001 found that 63 percent of those surveyed in 17 countries felt that private participation had not been beneficial, while the same survey found only 45 percent had held this view three years earlier.[32] In some countries, observers have complained that private infrastructure projects have not appreciably improved the provision of public services. In some cases, private infrastructure contracts have created new problems, such as the need for frequent contract renegotiations. Seventy-five percent of the water contracts drawn in the 1990s in Latin America were renegotiated, and 74 percent of the transport concessions were renegotiated.

Digging deeper into efficiency issues, the World Bank found that "in general, … [private participation] has been associated with improvements in efficiency, but only with or through other reforms. … [The] more relevant variables include the degree of competition, the design of regulation, the quality of institutions and the degree of corruption." Meaningful competition and the transfer of commercial risk to the private sector have been associated with improvements from private participation, but "governments have to pay attention to the detailed design of regulatory frameworks."[33]

Private participation may complicate the design of regulations, but in principle has advantages. With a private provider, it should be easier to enforce requirements and meet non-financial targets. Because the agent responsible for enforcing policies is better separated from the provider, the provider can be more easily replaced if performance is not up to expectations. It should also be easier to remove price subsidies, because with a private-sector agency the subsidies usually are explicit, while under a public agency the subsidies are represented in terms of the financial loss of the provider.

The key question facing public utilities in the early 1990s was how to set prices so as to both meet public needs for accessible, reliable service, and make the service financially

* The Financing for Development Initiative of the World Economic Forum

sustainable under a constrained budget. Fifteen years later, the question of pricing is still fundamental, but the problem has changed from getting the price right to constructing the right financial incentives to encourage productive private-sector engagement. Fortunately, many lessons have been learned on how this can be done in both developed and developing countries.

RECOMMENDATIONS AND CONCLUSIONS

The need for increased investment in infrastructure in developing countries is obvious. Equally obvious is that public provision of infrastructure alone will not be adequate to do the job. **The private sector has much to offer, in both human and financial resources, and should be part of the solution to meeting the infrastructure needs of developing countries.**

Of the three entities involved in private infrastructure projects (public, private, and donors), the private sector seems, at this time, to have both the strongest desire and the least incentive to participate. At the end of 2005, most observers agree that there is a substantial potential supply of private-capital seeking investment opportunities worldwide. Many in the private sector, although aware of potential for profits through such projects, are wary due to the economic losses experienced by some firms in the recent past. Although many types of organizations operate in developing countries for humanitarian reasons, profit-making firms need the incentive of profit to induce investment.

Some developing country governments understand the value of enlisting private companies to design, build, and deliver infrastructure services; and they have many candidate projects, including a large number of existing state-owned enterprises that would benefit from divestiture. Donors, too, see the value in facilitating private infrastructure projects, but their bureaucratic processes and long-standing mindsets often get in the way of embracing innovative ways of "doing more."

Host-country governments and aid donors must do more to overcome public resistance and to entice private-sector participation by explaining the benefits of foreign investment in infrastructure, while also becoming more effective and reliable "partners."* "Doing more" might encompass a greater use of guarantees, escrow accounts, penalty clauses or other financial mechanisms to reassure, without completely indemnifying, private-sector companies. At the same time, developing-country governments must, for a host of reasons linked to development, redouble efforts to establish and maintain sound and stable economic policies and to eliminate corruption. Establishing more effective regulatory regimes, property rights, and (judicial) enforceability must be part of the process. In the final analysis, the actions of developing-country governments to establish and maintain credible policies are prerequisites to attract private investment of all kinds. **Among the most important actions developing countries can take, in the context of infrastructure investments, are:**

- **to be fully transparent about all aspects of private infrastructure projects,**
- **to establish sound and equitable pricing policies, and**
- **to devote sufficient talent and resources to the development of private infrastructure project contracts and regulation.**

In addition to taking on a greater role in facilitating private infrastructure projects, donors also ought to look more closely at the potential benefits of pooled-financing arrangements. With appropriate donor involvement, through partial guarantees and technical assistance, pooled-financing arrangements hold the promise of drawing in additional private-sector capital. In addition, by tapping into grass-roots demand for services, such arrangements can overcome some of the popular distrust that has marred some projects and caused them to fail. Certainly, the concept deserves further attention and experimentation.

* The need to contend with negative public opinion about foreign investment in infrastructure is not limited to developing countires. Governor Mitch Daniels of Indiana said, with regard to the lack of public support for his state's sale of a major highway, "I should have done much more than I did to walk Indiana through, in advance, both the business case and the realities of today's global competition." Op-Ed contribution, Mitch Daniels, "For Whom the Road Tolls," *The New York Times*, May 27, 2006.

As one analyst has observed, "The legally binding contracts and hard budget constraints introduced by private participation flushed into the open problems that had been hidden during the era of public provision. While some governments have not been able to deal successfully with these, these problems will not be solved by a reversion to public provision."[34] Governments that are truly seeking economic development will have to address their infrastructure needs, and the policies that have prevented sufficient investment and provision of services. When they do, it is most likely that private-sector participation with public support will be an important element of the solution to the infrastructure needs of the world's poorest countries.

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OBJECTIVES OF THE COMMITTEE FOR ECONOMIC DEVELOPMENT

For more than 60 years, the Committee for Economic Development has been a respected influence on the formation of business and public policy. CED is devoted to these two objectives:

To develop, through objective research and informed discussion, findings and recommendations for private and public policy that will contribute to preserving and strengthening our free society, achieving steady economic growth at high employment and reasonably stable prices, increasing productivity and living standards, providing greater and more equal opportunity for every citizen, and improving the quality of life for all.

To bring about increasing understanding by present and future leaders in business, government, and education, and among concerned citizens, of the importance of these objectives and the ways in which they can be achieved.

CED's work is supported by private voluntary contributions from business and industry, foundations, and individuals. It is independent, nonprofit, nonpartisan, and nonpolitical.

Through this business-academic partnership, CED endeavors to develop policy statements and other research materials that commend themselves as guides to public and business policy; that can be used as texts in college economics and political science courses and in management training courses; that will be considered and discussed by newspaper and magazine editors, columnists, and commentators; and that are distributed abroad to promote better understanding of the American economic system.

CED believes that by enabling business leaders to demonstrate constructively their concern for the general welfare, it is helping business to earn and maintain the national and community respect essential to the successful functioning of the free enterprise capitalist system.

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CE	Circulo de Empresarios Madrid, Spain
CEAL	Consejo Empresario de America Latina Buenos Aires, Argentina
CEDA	Committee for Economic Development of Australia Sydney, Australia
CIRD	China Institute for Reform and Development Hainan, People’s Republic of China
EVA	Centre for Finnish Business and Policy Studies Helsinki, Finland
FAE	Forum de Administradores de Empresas Lisbon, Portugal
IDEP	Institut de l’Entreprise Paris, France
IW	Institut der deutschen Wirtschaft Koeln Cologne, Germany
経済同友会	Keizai Doyukai Tokyo, Japan
SMO	Stichting Maatschappij en Onderneming The Netherlands
SNS	Studieförbundet Naringsliv och Samhälle Stockholm, Sweden

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